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NOTICE OF ALLOWANCE AND FEE(S) DUE

20457 7590 07/22/2010

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER

BEDTELYON, JOHN M

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 07/22/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,810

03/28/2006

Nobuo Miyadera

396.46073X00

9359

TITLE OF INVENTION: LIGHT BRANCHING OPTICAL WAVEGUIDE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/22/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

20457 7590 07/22/2010

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,810	03/28/2006	Nobuo Miyadera	396.46073X00	9359

TITLE OF INVENTION: LIGHT BRANCHING OPTICAL WAVEGUIDE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/22/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
BEDTELYON, JOHN M	2874	385-045000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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10/573,810	03/28/2006	Nobuo Miyadera	396.46073X00	9359
20457	7590	07/22/2010	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			BEDTELYON, JOHN M	
			ART UNIT	PAPER NUMBER
			2874	
DATE MAILED: 07/22/2010				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/573,810	MIYADERA ET AL.	
	Examiner	Art Unit	
	JOHN M. BEDTELYON	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment and remarks submitted 06/03/2010.
2. ☒ The allowed claim(s) is/are 1-21,24,25 and 28-40.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|--|---|

/John M Bedtelyon/
Examiner, Art Unit 2874

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/03/2010 has been entered.

Response to Amendment

2. This action is responsive to the amendment and remarks submitted 06/03/2010. Claims 1, 2, 7, 15, 21, and 25 are currently amended. No claims are newly added. Claims 22, 23, 26, and 27 are canceled. Claims 1-21, 24, 25, and 28-40 are currently pending in the Application.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William I. Solomon (Reg. No. 28,565) on 07/07/2010.

The application has been amended as follows:

Please amend Claim 1 as follows:

A light branching optical waveguide, comprising:

at least one incident light waveguide (A), including an optical waveguide (a),
optically connected to one end of a multi-mode optical waveguide, the multi-mode
optical waveguide having a geometrical central axis, and wherein light of a basic mode
propagating in ~~the at least one incident light~~ said optical waveguide (Aa) enters on the
geometrical central axis of the multi-mode optical waveguide; and

output light waveguides (B) larger in number than the at least one incident light
waveguide (A), optically connected to the other end of the multi-mode waveguide,
the light branching optical waveguide being characterized in that:

an intensity distribution of light entering from ~~at least one~~ said optical waveguide
(a), of the at least one incident light waveguide (A), into the multi-mode optical
waveguide at a connecting surface of the at least one incident light waveguide (A) and
the multi-mode optical waveguide, is asymmetric with respect to a geometrical central
axis of ~~the at least one~~ said optical waveguide (a), ~~the at least one~~ said optical
waveguide (a), of the at least one incident light waveguide (A), having a curved
structure, with light entering from said ~~at least one~~ optical waveguide (a) into said multi-
mode optical waveguide, and with light having a wavelength entering at least two of said
output light waveguides (B) from said multi-mode optical waveguide, so as to branch
said light from the multi-mode optical waveguide having the same wavelength into each
of said at least two of said output light waveguides (B), a branching ratio between
quantities of light branched into each of said at least two of said output light waveguides
(B) being substantially equal; and

an extended line of the geometrical central axis of ~~the at least one~~ said optical waveguide (a) does not coincide with a geometrical central axis of the multi-mode optical waveguide.

Please amend Claim 2 as follows:

A light branching optical waveguide, comprising:

at least one incident light waveguide (A), including an optical waveguide (a), optically connected to one end of a multi-mode optical waveguide, the multi-mode optical waveguide having a geometrical central axis, and wherein light of a basic mode propagating in ~~the at least one incident light~~ said optical waveguide (Aa) enters on the geometrical central axis of the multi-mode optical waveguide; and

output light waveguides (B) larger in number than the at least one incident light waveguide (A), optically connected to the other end of the multi-mode optical waveguide,

the light branching optical waveguide being characterized in that:

an intensity distribution of light entering from ~~at least one~~ said optical waveguide (a), of the at least one incident light waveguide (A), into the multi-mode optical waveguide at a connecting surface of the at least one incident light waveguide (A) and the multi-mode optical waveguide, is asymmetric with respect to a geometrical central axis of ~~the at least one~~ said optical waveguide (a), ~~the at least one~~ said optical waveguide (a), of the at least one incident light waveguide (A), having a curved structure, with light entering from said ~~at least one~~ optical waveguide (a) into said multi-mode optical waveguide, and with light having a wavelength entering at least two of said

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output light waveguides (B) from said multi-mode optical waveguide, so as to branch said light from the multi-mode optical waveguide having the same wavelength into each of said at least two of said output light waveguides (B), a branching ratio between quantities of light branched into each of said at least two of said output light waveguides (B) being substantially equal; and a core shape of the multi-mode optical waveguide is asymmetric with respect to a geometrical central axis of the multi-mode optical waveguide.

Claim 3, lines 2-3: please substitute "the at least one" with --said--.

Claim 4, lines 3-4: please substitute "the at least one" with --said--.

Claim 12, lines 3-4: please substitute "the at least one" with --said--.

Claim 19, line 3: please substitute "the at least one" with --said--.

Please amend claim 21 as follows:

A method of manufacturing a light branching optical waveguide, having at least one incident light waveguide (A), including an optical waveguide (a), optically connected to one end of a multi-mode optical waveguide, the multi-mode optical waveguide having a geometrical central axis, and wherein light of a basic mode propagating in ~~the at least one incident light~~ said optical waveguide (Aa) enters on the geometrical central axis of the multi-mode optical waveguide, and output light waveguides (B) larger in number than the number of incident light waveguides (A), optically connected to the other end of the multi-mode optical waveguide, ~~the at least one incident light waveguide (A) including at least one optical waveguide (a)~~ having an intensity distribution of light entering the multi-mode optical waveguide, from said optical waveguide (a), ~~therefrom that is~~

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asymmetric with respect to a geometrical central axis of ~~the at least one~~ said optical waveguide (a), wherein said ~~at least one~~ optical waveguide (a), of the at least one incident light waveguide (A), is a curved optical waveguide, with light entering from said ~~at least one~~ optical waveguide (a) into said multi-mode optical waveguide, and with light having a wavelength entering at least two of said output light waveguides (B) from said multi-mode optical waveguide, so as to branch said light from the multi-mode optical waveguide having the same wavelength into each of said at least two of said output light waveguides (B), a branching ratio between quantities of light branched into each of said at least two of said output light waveguides (B) being substantially equal, comprising the step of:

positioning ~~the at least one~~ said optical waveguide (a) such that an extended line of the geometrical central axis of ~~the at least one~~ said optical waveguide (a) does not coincide with a geometrical central axis of the multi-mode optical waveguide.

Claim 24, lines 2-3: please substitute “the at least one optical waveguide (a)” with --said optical waveguide (a)--.

Please amend claim 25 as follows:

A method of manufacturing a light branching optical waveguide, having at least one incident light waveguide (A), including an optical waveguide (a), optically connected to one end of a multi-mode optical waveguide, the multi-mode optical waveguide having a geometrical central axis, and wherein light of a basic mode propagating in ~~the at least one incident light~~ said optical waveguide (Aa) enters on the geometrical central axis of the multi-mode optical waveguide, and output light waveguides (B) larger in number

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than the number of incident light waveguides (A), optically connected to the other end of the multi-mode optical waveguide, ~~the at least one incident light waveguide (A) including at least one optical waveguide (a) having~~ an intensity distribution of light entering the multi-mode optical waveguide, from said optical waveguide (a), therefrom that is asymmetric with respect to a geometrical central axis of ~~the at least one~~ said optical waveguide (a), wherein said ~~at least one~~ optical waveguide (a), of the at least one incident light waveguide (A), is a curved optical waveguide, with light entering from said ~~at least one~~ optical waveguide (a) into said multi-mode optical waveguide, and with light having a wavelength entering at least two of said output light waveguides (B) from said multi-mode optical waveguide, so as to branch said light from the multi-mode optical waveguide having the same wavelength into each of said at least two of said output light waveguides (B), a branching ratio between quantities of light branched into each of said at least two of said output light waveguides (B) being substantially equal, comprising the step of:

forming a core shape of the multi-mode optical waveguide to be asymmetric with respect to a geometrical central axis of the multi-mode optical waveguide.

Claim 28, lines 2-3: please substitute “the at least one optical waveguide (a)” with --said optical waveguide (a)--.

Claim 29, line 2: please delete the phrase “at least one”.

Claim 30, line 2: please delete the phrase “at least one”.

Claim 31, line 2: please delete the phrase “at least one”.

Claim 32, line 2: please delete the phrase “at least one”.

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Claim 33, lines 2-3: please delete the phrase “at least one”.

Claim 34, lines 2-3: please delete the phrase “at least one”.

Claim 35, line 2: please delete the phrase “at least one”.

Claim 36, line 2: please delete the phrase “at least one”.

Allowable Subject Matter

4. Claims 1-21, 24, 25, and 28-40 are allowed.

5. The following is an examiner’s statement of reasons for allowance: the prior art of record fails to anticipate or render obvious the limitation, in combination with all the other claim limitations, wherein light of a basic mode propagating in said optical waveguide (a) enters on the geometrical central axis of the multi-mode optical waveguide, an intensity distribution of light entering from said optical waveguide (a) is asymmetric with respect to a geometrical central axis of said optical waveguide (a), said optical waveguide (a) having a curved structure, a branching ratio between quantities of light branched into each of said at least two of said output light waveguide (B) being substantially equal (claims 1, 2, 21, and 25). Additionally, one having ordinary skill in the art does not possess any general knowledge that would render the claims obvious in view of any of the prior art references, thusly, one of ordinary skill would not have found the claims to be obvious without the use of improper hindsight and a review of the disclosure of the instant application.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hanashima (US Patent Application Publication 2003/0202746), Lu (US Patent 7,302,138), Takahashi et al. (US Patent 7,088,889), and Johannessen et al. (US Patent 6,970,625) all of which disclose Y-branching optical couplers, but fail to disclose the limitations of the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN M. BEDTELYON whose telephone number is (571)270-1290. The examiner can normally be reached on Monday - Friday, 10:00am - 6:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen-Chau Le can be reached on 571-272-2397. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John M Bedtelyon/
Examiner, Art Unit 2874

/UYEN-CHAU N. LE/
Supervisory Patent Examiner, Art Unit 2874